

In the Claims. This Listing of Claims replaces all prior versions and listings of Claims in the application.

1           1.       (Currently Amended)       A method for identifying an unknown  
2 print medium, the method comprising:  
3           transporting a print medium ~~from a print media supply~~ along a paper path  
4 ~~and over an apparatus structure positioned in the paper path,~~ of a hard copy  
5 apparatus structure including a lower paper guide including a reflective element  
6 and a non-reflective element, the lower paper guide positioned subjacently to a  
7 transmissive sensor;  
8           beaming transmissive light through the print medium;  
9           impinging the transmissive light onto the reflective element;  
10          impinging the transmissive light onto the non-reflective element;  
11          sensing a reflected light from the reflective element and the non-reflective  
12 element;  
13          recording data representative of light reflection and light absorption; and  
14          comparing recorded data from said recording to predetermined data  
15 representative of a known print medium thickness and a known print medium  
16 transmissivity.

1           2.       (Previously Presented)       The method as set forth in claim 1  
2 wherein the step of recording data representative of light reflection and light  
3 absorption further comprises:  
4           recording transmissive light levels of the print medium over a lightwave  
5 reflective element, and  
6           recording transmissive light levels of the print medium over a lightwave  
7 absorptive element.

1           3.       (Original)       The method as set forth in claim 1 further comprising:  
2           when no match between said recorded data and said predetermined data  
3 is obtained, storing said recorded data as a new print medium data file.

1           4.       (Original)       The method as set forth in claim 1 embodied in  
2 computer code.

1           5.       (Currently Amended)       A method for characterizing print media  
2 comprising:

3           transporting a print medium ~~from a print media supply~~ along a paper path  
4 ~~and over an apparatus structure positioned in the paper path, the apparatus~~  
5 ~~structure of a hard copy apparatus structure~~ including a lower paper guide  
6 including a reflective element and a non-reflective element, the lower paper guide  
7 positioned subjacently to a transmissive sensor;

8           beaming transmissive light through ~~a first type of the~~ print medium;

9           impinging the transmissive light onto a surface reflective of the  
10 transmissive light and a surface absorptive of the transmissive light;

11          recording a profile representative of light reflection and light absorption of  
12 the print medium; and

13          storing said profile in a memory with an identifier associated with said ~~first~~  
14 ~~type of~~ print medium.

1           6.       (Currently Amended)       The method as set forth in claim 5  
2 further comprising:

3           beaming the transmissive light through a second type of print medium;

4           impinging the transmissive light onto a the surface reflective of the  
5 transmissive light and a the surface absorptive of the transmissive light;

6           recording a profile representative of light reflection and light absorption of  
7 the second type of print medium; and

8           storing said profile in a memory with an identifier associated with said  
9 second type of print medium.

1           7.       (Currently Amended)       The method as set forth in claim 6  
2 further comprising:

3           beaming the transmissive light through a third type of print medium;

4           impinging the transmissive light onto the surface reflective of the  
5 transmissive light and the surface absorptive of the transmissive light;

6 recording a profile representative of light reflection and light absorption of  
7 the third type of print medium; and  
8 ~~wherein~~ referencing said memory ~~is used~~ as a look-up table for identifying  
9 a the profile of the third print medium.

1 8. (Currently Amended) A method for determining a multi-pick  
2 feed of cut sheet print media, the method comprising:  
3 transporting a print medium ~~from a print media supply~~ along a paper path  
4 ~~and over an apparatus structure positioned in the paper path, the~~ of a hard copy  
5 apparatus structure including a lower paper guide including a reflective element  
6 and a non-reflective element, the lower paper guide positioned subjacently to a  
7 transmissive sensor;  
8 beaming transmissive light through the print medium;  
9 impinging the transmissive light onto the reflective element;  
10 impinging the transmissive light onto the non-reflective element;  
11 sensing a reflected light from the reflective element and the non-reflective  
12 element;  
13 recording data representative of light reflection and light absorption;  
14 storing first data representative of media thickness and transmissivity of a  
15 single sheet of a known print medium;  
16 storing second data representative of media thickness and transmissivity  
17 of at least two stacked sheets of a the known print medium;  
18 recording third data representative of ~~current~~ the print medium thickness  
19 and transmissivity ~~during transport of said current medium from a supply toward a~~  
20 ~~printing zone~~; and  
21 comparing said third data to said first and second data.

1 9. (Currently Amended) A print media sensor device, comprising:  
2 a light emitter positioned in a linear transport region of a ~~print media~~  
3 ~~transport paper~~ path, for directing a light beam across the ~~print media transport~~  
4 paper path, the light beam having predetermined intensity and wavelength for  
5 penetrating a sheet of print media in said ~~print media transport~~ paper path;

6 a reflective element and a non-reflective element mounted to an apparatus  
7 structure including a lower paper guide positioned in the ~~print media transport~~  
8 paper path, the reflective element and the non-reflective element aligned with the  
9 light emitter; such that said light beam is received by the reflective element and  
10 the non-reflective element after passing through the sheet of print media in said  
11 ~~print media transport~~ paper path; and  
12 a light detector positioned in the linear transport region of the ~~print media~~  
13 ~~transport~~ paper path providing an output signal indicative of thickness and  
14 transmissivity of the sheet of print media.

1 10. (Currently Amended) The device as set forth in claim 9  
2 wherein said output signal further comprises a first level when no print media is  
3 interrupting the light beam, a second output signal indicative of ~~a single~~ the sheet  
4 of print media interrupting the light beam, and at least one other signal level  
5 indicative of multiple sheets of print media interrupting the light beam.

1 11. (Currently Amended) The device as set forth in claim 9  
2 wherein said output signal further comprises a first signal when no print media is  
3 interrupting the light beam, a second signal when the sheet of print media is  
4 interrupting the light beam over a reflective surface, and a third signal when the  
5 sheet of print media is interrupting the light beam over an absorptive surface.

1 12. (Currently Amended) The device as set forth in claim 11  
2 further comprising:  
3 the light emitter mounted to a transport, the transport powered for  
4 scanning said light beam across ~~a paper the print media transport path of said~~  
5 ~~print media~~ the paper path wherein a the reflective element and ~~absorptive the~~  
6 non-reflective element are mounted transverse to said ~~print media transport~~  
7 paper path such that the sheet of print media passes between said light emitter  
8 and said reflective element and absorptive element.

1 13. (Currently Amended) The device as set forth in claim 12  
2 wherein the light emitter further comprises:

3 an LED optical emitter ~~mounted for projecting a light beam through the~~  
4 ~~print media wherein the light beam has a predetermined intensity and wavelength~~  
5 ~~for penetrating and being reflected back through at least two sheets of print~~  
6 ~~media.~~

1 14. (Cancelled) A computer memory comprising:  
2 computer code for recording data representative of print medium thickness  
3 and transmissivity using an incident light source; and  
4 computer code for comparing recorded data from said recording to  
5 predetermined data representative of known print medium thickness and  
6 transmissivity.